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## ECCENTRIC OFFICIAL STATISTICS. II.

IN the January number of the JOURNAL OF SOCIOLOGY the writer called attention to the eccentric character of census statistics of production and wages. The purpose of the present article is a criticism of census statistics of capital and wealth which seem equally eccentric. In *The Margin of Profit* Mr. Edward Atkinson says :

Mr. Chamberlain attempts to sustain his position by making the common blunder, which he shares with many members of Congress who ought to know better, by trying to find out what were the profits of manufacturing in 1880 from the figures of the census. For such a purpose the figures of the census are mere rubbish. If the questions had been put in such a way that the profits of the different arts investigated would have been disclosed, manufacturers would either have returned no answer whatever or would not have given correct and complete answers. The taking of the census had no such purpose and it would be impossible to carry it out if it had. All that you have in the census—and I know of what I speak, for I framed the forms of many of the questions, especially in the department of which I took the census myself—I say all that you have in the census which is of value and which can be used with safety is the gross value of manufacturing production, the cost of the materials, the number of employés and the sum of their wages.\*

In the eleventh census we find adopted the very plan which Mr. Atkinson declares it would be impossible to carry out, for besides miscellaneous expenses in addition to cost of material and wages which were not reported at the tenth census, it was attempted to obtain the full amount of capital employed in man-

\* The value of even these items may be doubted when we find so noted a statistician as Mr. Atkinson quoting the sum of manufactured products as the value of manufacturing production. This Mr. Atkinson does in an article in the *Chicago Record* of December 11, 1896, saying: "According to the census of manufactures the total value in 1890 was \$9,372,437,283, number of employés 4,712,622, average earnings \$484."

The value of the products of manufacturing industry is thus quoted for the purpose of showing the relative insignificance of products with which it is compared. The error of such statements was shown in the writer's preceding article.

ufacturing industry, whether owned, hired, or borrowed. This it is claimed was not accomplished in the census of 1880. The futility of any attempt to obtain the amount of manufacturing capital is not only intimated by Mr. Atkinson, but declared by General Walker in his remarks of the *Ninth Census* which he repeated in the *Census of 1880*:

The census returns of capital invested in manufactures are entirely untrustworthy and delusive. The inquiry is one of which it is not too much to say that it ought never to be embraced in the schedules of the census, not merely for the reason that the results are, and must remain wholly worthless, the inquiry occupying upon the schedules the place of some technical questions which might be made to yield information of great value, but also because the inquiry in respect to capital creates more prejudice and arouses more opposition to the progress of the enumeration than all the other questions of the manufacturing schedule united. It is in fact the one question which manufacturers resent as needlessly obtrusive, while at the same time it is perhaps the one question in relation to their business which manufacturers, certainly the majority of them, could not answer to their own satisfaction if disposed.

As capital can only increase from earnings, statistics which indicate an enormous increase of capital invested and a comparatively insignificant profit on such investment, as do those of the eleventh census, are evidently, like those of the tenth census, "mere rubbish," which it is worse than a waste of the public treasure to publish. Notwithstanding the incomparability of the statistics of capital of the tenth and eleventh censuses, we find in the latter census elaborate comparative tables showing by localities and industries the amount of capital required to produce \$100 of product in the two periods. Not only do we find these comparisons, that cannot fail to mislead, but attempts to compute the profits of manufacturing capital from statistics that according to Mr. Atkinson and General Walker must be wholly worthless.

On page 166, part 3, of the manufacturing statistics are presented miscellaneous expenses of the cotton-goods industry, embracing information reported at no previous census, with the remarks;

Although the ascertainment of the profits of manufacturing is no part of the purpose of the census inquiry, and although the facts which can be procured by an official examination must necessarily omit many items and circumstances which must be considered before the actual profits are disclosed, yet the omissions are now so much fewer than on any former occasion that we can certainly arrive at a nearer approximation of the truth regarding the margin of profit than ever before, as shown in the following statement :

EXPENSES AND PRODUCT.					
Value of products,	-	-	-	-	\$267,981,724
Cost of material used,	-	-	-	\$154,912,979	
Wages,	-	-	-	-	66,024,538
Salaries of officers and clerks,				3,464,734	
Miscellaneous expenses,	-	-	-	16,716,524	241,118,775
				<hr/>	
Remainder,	-	-	-	-	\$26,862,949

This remainder represents 7.59 per cent. of the capital excluding the value of hired property, but represents much more than the actual profits of manufacturing. All capital expenditures, excepting rent and interest paid for cash used in business are excluded from the items entering into the cost of production ; ordinary repairs are included, but all renewals and expenditures on account of depreciation of machinery are omitted.

The cost of renewal takes a large percentage of nominal profits in a cotton-spinning mill. An allowance of 3 per cent. of the value of the buildings and machinery is a moderate one ; this would be a gross sum of \$6,233,054 ; reducing the \$26,862,949 by this sum, the remainder will be \$20,629,895 which is 5.83 per cent. of the reported capital.

The amount of capital reported as invested in this industry is stated as \$354,020,843 exclusive of hired property, of which \$230,993,567 represents the plant and \$123,027,276 live assets. Miscellaneous expenses were given as follows :

Rent paid for tenancy,	-	-	-	\$ 488,735
Taxes,	-	-	-	2,689,632
Insurance,	-	-	-	1,213,322
Repairs of buildings and machinery,	-	-	-	3,987,748
Interest paid on cash used in business,	-	-	-	4,098,435
Sundries not elsewhere reported,	-	-	-	4,238,652

We find it remarked : " Borrowed cash is included in the capital reported at the census of 1890, but it is impossible to state in which of the different items it is included, as the schedule of inquiry did not require such a statement. The amount can be estimated by computation based on the interest report under miscellaneous expenses."

At 5 per cent. the amount of interest paid represents an average amount of borrowed capital of \$81,969,870, equal to two-thirds of the reported live capital. As interest on this amount is included in expenses it cannot be properly included in the amount of capital on which to compute the margin of profit. Such a computation gives rise to the ungracious suspicion of a purpose on the part of census officials to mislead the public as to the profits of capital. Possibly, however, this is only a blunder illustrating their incompetence. Deducting the borrowed capital on which interest had been paid from the reported capital, and dividing the profits shown by the remainder, we have as the quotient representing the margin of profit 7.61 per cent. instead of 5.83 per cent.

It may be noticed that the capital reported seems out of proportion to the value of the product. Cotton goods are staple and sold largely on orders and for cash and seldom on long time. The writer is informed by one acquainted with the business that in ordinary times, such as was the census year, the live assets should be turned over at least five times during the year. According to these statistics it required \$123,027,026 to handle \$267,981,724 of product, over 20 millions of which was profits in large part available for handling the product. To what extent the capital reported as invested in the plant may be an exaggeration we have no means of computing, but it seems quite evident that the live assets are reported at more than double the actual live capital. Moreover as there is specifically included in expenses all material consumed in manufacturing production, together with rent, interest, and ordinary repairs, and besides wages of operatives the salaries of those who conduct the business, it seems difficult to conceive what can be the expenses amounting to \$4,238,652 which we find included as "sundries not elsewhere reported."

The depreciation of plant, for which allowance is also made, has been largely if not entirely offset by the increase of site values, which increase has become part of the capital on which the margin of profit is computed.

A comparison of the manufacturing statistics of the tenth

and eleventh censuses indicates an increase of 69.31 per cent. in production and 120.78 per cent. in the amount of capital invested. The worthlessness of census statistics of capital, and the manner in which a large part of the apparent total increase of product as well as capital is obtained, is shown in the following table compiled from the tables of the eleventh census. Accepting these figures we must conclude that in these five trades there were almost four times as many employés and four times as large a product in 1890 as in 1880, and that five and a half times as much capital was invested, though there had been an increase in the numbers of those reporting themselves as engaged in these occupations (as shown by the tables of occupation) of but 68 per cent.

	Year	Average number of employés	Capital	Value of product
Carpentry .....	{ 1880	54,138	\$19,541,358	\$94,152,139
	{ 1890	140,021	81,542,845	281,195,162
Masonry, brick and stone .....	{ 1880	16,020	3,990,706	29,586,553
	{ 1890	119,029	54,969,408	204,165,642
Painting and paper hanging...	{ 1880	17,711	5,645,950	22,457,560
	{ 1890	56,281	23,135,781	72,067,998
Plumbing and gas fitting.....	{ 1880	2,165	5,950,512	18,133,250
	{ 1890	5,327	29,235,247	80,905,925
Plastering and stucco work.....	{ 1880 <sup>*</sup>	.....	.....	.....
	{ 1890	10,624	3,309,297	13,460,824
Total .....	{ 1880	90,034	\$35,128,520	\$164,329,502
	{ 1890	331,282	192,192,578	651,795,551
Increase per cent.....	....	267	445	296

To one acquainted with the manner of letting building contracts and conducting the business of these trades the amount of capital reported seems greatly out of proportion to the product and the number of employés and amount of wages. One of Chicago's most experienced architects, to whom the table was submitted, declared it absurd, and expressed the opinion that Chicago contractors have not capital invested in their business to the extent of 10 per cent. of the value of the work executed.

<sup>\*</sup> Tabulated in 1880 under head of Masonry, brick and stone.

While many of the contractors engaged in these industries have accumulated property, the larger proportion are persons of small means, and those who possess wealth find more profitable investment for it than in an occupation where but little capital is required.

Building contracts as a rule provide for payments as the work progresses, but 15 per cent. being usually retained till the completion of the contract. This enables the contractor who purchases his material on credit to obtain payments on his contract to meet most of his expenses. With a very small amount of capital, which is turned over many times, he is able to execute a large amount of work. The principal capital employed is that of the producers of building material. As this capital is reported in such industries, to include it also as capital employed in building trades is to count the same capital twice.

The great increase that may be noticed in the number of employes reported, as has been stated, results from the defective enumeration of the previous census. The same is true as to the increase of product. We have here in five industries an increase in the value of the product amounting to almost half a billion, not more than 10 per cent. of which can be due to an actual increase.

An investigation of census reports of valuation shows also an enormous apparent increase of wealth due to deficient earlier enumerations. Quoting the figures of our census, Mulhall declares: "This is a prodigious increase of wealth and without parallel in the history of the human race" (*Dictionary of Statistics*). Discovering how greatly not only our own people but the whole world have been misled by comparisons of incomparable census statistics we are surprised that so eminent a statistician and economist as Colonel Wright should remark that census statements of less than the full amount have little disastrous effects. This indicates a failure to perceive the danger of which Robert Giffen, the most eminent of English statisticians, warns his readers in *Growth of Capital*. Giffen declares: "Country has been compared with country and period with period in the most reckless fashion without any regard to the comparability of the data."

In his contribution to the *JOURNAL OF SOCIOLOGY*, November 1895, Colonel Wright says :

Like all fruit the fruit of the census tree has been of various grades. The information was not always accurate but it was rarely vicious, and taking the census of 1850 as the first great stage of growth it must be understood as of varied quality. I have said the results were never vicious. This was true because overestimates are rare under census taking. If the returns were in any sense defective, they were defective as to quantity stated. . . . If more than the full amount was given the result might be damaging, but statements of less than the full amount while disappointing have little or no disastrous effect.

Showing the different methods adopted in preceding censuses from those of the tenth census, which must make comparisons most dangerous unless accompanied by the fullest explanation and warning, Colonel Wright remarks of the tenth census: "Its faults were the faults of any such great undertaking, but they were less than the faults of any previous census."

The viciousness of our census statistics seems to be not in the deficiencies of the earlier enumerations but in the comparisons of incomparable statistics which we find in the later censuses. In the tenth census, instead of a caution as to comparing the valuations of that census with preceding censuses, we find remarks conveying the impression that while the estimate of true value of the census of 1860 was comparable with that of 1880 it was not comparable with the estimates of the preceding census. Judging by its results the fault of the tenth census, which Colonel Wright so highly commends, seems infinitely greater than the fault of any preceding census. By misleading our most eminent statesmen and writers as well as those less experienced, the tenth and eleventh censuses have defeated the purpose for which at great expense they have been compiled. What wonder that with official statistics which seem to indicate a per capita increase of wealth during the decade of war and waste, 1860-1870, three times as great as during the decade of peace and toil which followed, so many have concluded that the apparently great prosperity of this period was due to the greenback issues, and that there is virtue in a flood of money! What wonder either that a



comparison of statistics of 1880 and 1890 with those of 1860 should have led others to believe in the potency of a tariff tax for the creation of wealth! Deceived by the statistics of the tenth census, we find one so influential in molding public opinion and directing legislation as the late James G. Blaine alleging an increase in the wealth of the nation from 1860 to 1880 of 30 billion dollars as a result of our tariff policy. This assertion, first made in his letter accepting the nomination of his party for the presidency in 1884, is repeated in *Twenty Years of Congress* and in his discussion of the tariff question with Mr. Gladstone (*North American Review*, January 1890). This mistaken assertion has been iterated and reiterated by the greater as well as the lesser lights of the protective theory, including ex-President Harrison and President McKinley. Not only have those of one political faith been misled, but we find the free-trade champion, Roger Q. Mills, replying to Mr. Blaine's reply to Mr. Gladstone, practically indorsing Mr. Blaine's erroneous assertions (*North American Review*, February 1890). Mr. Blaine having properly omitted slave values in comparing the census valuation of 1860 with that of 1880, Mr. Mills charges him with an error of two billions, but is oblivious of the fact that claiming the difference between the valuation of 1860 and 1880 as measuring the increase of the nation's wealth during the period was an error of several times two billions.

The question at issue is, as was declared by Mr. Blaine, of transcendent importance to the present and future of the republic, and its discussion by the foremost advocates of opposing theories had unquestionably wide influence. "We must," said Mr. Blaine, "insist on being guided by facts and not by theories."

In the light of recent admissions by census officials, Mr. Blaine's boasted facts seem only fiction. These admissions have been made with evident reluctance, and only as attention has been called to the facts by those having no connection with the census office.

In a contribution to the *Chicago Record* of November 5, 1892, Mr. Robert P. Porter, late superintendent of census, placed oppo-

site the estimates of true value for 1860 and 1890, in a table which he presented, the remark: "A comparison cannot be made; 1860 only includes estimated true value based upon assessed property." Mr. Porter's *Record* article followed a contribution to that journal in which the author of the present paper had demonstrated the incomparability of census estimates of "true value." Though in this newspaper article Mr. Porter makes this admission, census bulletins for which he was responsible contain the very comparisons which he declares ought not to be made. *Bulletin 104*, dated August 22, 1891, contains statistics of assessed and true value, in which the earlier estimates of true value are tabulated with those of 1880 and 1890 as the true value of all property. Instead of any word of warning as to the comparability of the data the following remarks are made:

Should it be found on completion of the inquiry in relation to the true value of all property in the United States, that the same relation exists in 1890 between assessed value and true value as existed in 1880, the absolute wealth of the United States according to the eleventh census may be estimated at \$62,610,000,000 or nearly \$1000 per capita as against \$514 per capita in 1860, \$7.80 per capita in 1870 and \$8.70 per capita in 1880. . . . The final returns showing the absolute wealth of the country will necessarily be among the last publications of the office, as complete data for the calculation are not available until after the inquiries relating to agriculture and manufactures have been finished.

As will be shown, and as is admitted by Mr. Porter, the valuation of 1860 did not represent the true value of all property and is therefore incomparable with the later valuations which represent what Mr. Porter terms the "absolute wealth" of the country. Candid criticism of census bulletins having been invited, the writer under date of September 12, 1891, called Mr. Porter's attention to the erroneous statements and comparisons of this bulletin and the manner in which the public was being deceived thereby. This however had no effect, for on the 4th of June following *Census Bulletin 192* contained the same false statements, and only differed from the former bulletin in a slight change in the valuation for 1890. *Bulletin 379*, issued after Mr. Porter's retirement from the census, which occurred after the attention

of Secretary Smith had been called to the character of Mr. Porter's bulletins, gives the first intimation of the radical difference in methods in the earlier and later censuses. In this bulletin are presented the following figures accompanied by the following remarks :

True value of all real and personal property				Assessed valuation of real and personal property		
Year	Amount	Per capita	Increase per cent.	Total	Per capita	Increase per cent.
1850	\$ 7,135,780,228	308		\$ 6,024,666,909	260	
1860	16,159,616,068	514	126.46	12,084,560,005	384 <sup>1</sup>	100.58
1870	30,068,518,507	780	85.07	14,178,986,732	368	17.33
1880	43,642,000,000	870	45.14	17,139,903,495	342	20.88
1890	65,037,091,197	1036	49.02	25,473,173,418	407	48.62

It is evident from the small difference between the true and assessed values in 1850 and from the entire omission of the value of unorganized territories, that no account was taken at that time of the vast area of vacant public lands, or of any other property real or personal exempt from taxation, and the same is probably true at least to a considerable extent in 1860. The true valuation reported in 1870 is believed to include, not only the property taxed, but also to a great extent that exempt from taxation by law or escaping it by fraudulent evasion, but little information as to the kinds of property included is published. The report of 1880 shows a classification of the property included, indicating a more rigorous investigation as to values.

This bulletin is stated to have been prepared by Mr. J. K. Upton who also prepared bulletins 104 and 192. Seemingly unwilling to admit the falsity of his preceding bulletin, Mr. Upton remarks of the valuation of 1860: "The same is probably true, at least to a great extent."

The method adopted in 1860 is plainly stated in the remarks of the superintendent of that census, which show that no property could have been included in the estimate of true value which was not included in the assessor's returns. In the *Eighth Census* it is remarked :

The marshals of the United States were directed to obtain from the records of the states and territories respectively an account of the value of real and personal estate as assessed for taxation. Instructions were given these officers to add the proper amounts to the assessments so that the returns

should represent as well the true or intrinsic value as the inadequate sum generally attached to property for taxable purposes. . . . It must be borne in mind that the value of all taxable property was returned, including that of foreigners as well as natives, while all was omitted belonging to the United States.

In the remarks of the *Ninth Census* (1870) General Walker cautioned the public against comparing the valuation of that census with the preceding census, and on page 3, Vol. III, explains :

That part of the social statistics schedule of 1850 which is devoted to the subject of valuation has always been understood to require :

1. A positive statement of the value of real estate *as assessed* for purposes of state and local taxation.
2. A positive statement of the value of personal property *as assessed* for purposes of state and local taxation.
3. An estimate of the officer making the returns of the true value of both species of property combined. The phraseology of the schedule in this matter is most unfortunate, but it has always been understood (interpreted is hardly the word) to mean what is given above.

General Walker farther explained that he had undertaken not only to obtain the value of property exempt from assessment but to estimate and include the value of property escaping assessment by reason of concealment. As the result we find that while in the census of 1860 the estimated true value reported exceeded assessed values but 35 per cent., the estimated true value in the census of 1870 exceeded the assessed value 112 per cent.

As has been stated by Colonel Wright the census of 1880 was taken under a new law. This law provided for the appointment of special agents for the collection of valuation and manufacturing statistics, a duty that in previous censuses had been performed by the marshals who made the enumeration of population. At this census Mr. Robert P. Porter was appointed special agent in charge of statistics of wealth, debt, and taxation. As a result of the change of methods the estimates of true value of the tenth census exceeded those of the ninth census 45 per cent., though assessed values indicated an increase of but 20 per cent.

The estimates of true value of this census were tabulated with

valuations of preceding censuses as "the true value of all property," and this without a word of caution or explanation as to the incomparability of the estimates of value of that census with those of preceding censuses. The fact that the tenth census, unlike the ninth census, failed to give such warning may perhaps be accounted for by the resignation of General Walker before the work of the tenth census was completed. This left the remarks of the tenth census accompanying the tables of valuation to be written by Henry Gannett, Mr. Porter's subordinate, who instead of warning the public of the incomparability of the figures which he presented with those of previous censuses, cautioned it against a comparison of the valuations of 1850 and 1860, saying:

Yet we can scarcely credit so great an increase in the true value of property of the United States in a single decade as that from \$7,135,780,228 to \$16,159,616,068 or 126 per cent. Not only is so great an increase in itself very improbable, but there are many other considerations which indicate that the valuation of 1850 was much too small. For instance the growth of the agricultural and manufacturing interests during this period does not indicate so great an increase of wealth nor does the progress of our foreign trade and navigation interests, nor the increase of our banking and internal commerce; all these point to the probability that where the true valuation of 1860 and 1850 as given by the eighth and seventh censuses respectively are incompatible with one another, it is the latter which is mainly in fault.

This seems to have misled Mr. Blaine and through him must have misled the many thousands who read Mr. Blaine's letter of acceptance in 1884 and Whitelaw Reid's letter accepting the nomination of vice president in 1892, in which he quoted Mr. Blaine's letter. Referring to the valuation of 1850 Mr. Blaine said:

Little more was done than to consolidate the local valuations used in the states for purposes of assessment, and that, as everyone knows, differs widely from a complete exhibit of all the property. In the census of 1860, however, the work was done with great thoroughness, the distinction between "assessed value" and "true value" being carefully observed. The grand result was that the "true value" of all property in the states and territories (excluding slaves) amounted to 14 billions of dollars. . . . At the end of twenty years the total property of the United States as returned by the census of 1880 amounted to the enormous aggregate of 44 billions of dollars. This great result was

attained notwithstanding that countless millions had in the interval been wasted in a bloody war.

We have quoted Mr. Blaine as showing how even the brightest minds have been misled, and through them the public, by these contributions of the United States government to social science.

How greatly Mr. Blaine was deceived may be seen from the remarks of Superintendent Walker in the *Census of 1870*.

It will be easily gathered from the remarks already submitted that it is the belief of the superintendent that the estimates of the true value of property at the census of 1860 were made generally without any appreciation of the principles which should govern in the treatment of the subject, and that the results were for nearly all the states defective, while for some the statements of value were so far below the fact as to be unworthy of publication.

That the somewhat greater difference between the estimates of true value and assessed value in 1860 than in 1850 may have been due to a closer approximation of the true value of assessed property is possible, though it seems likely that in a decade of such rapid development as was that of the fifties the assessments failed to keep pace with the actual increase of values. Whatever of incomparability there may have been between the census estimates of "true value" for 1850 and 1860, it is evidently slight in comparison with the degree of incomparability between the estimate for 1860 and those of the succeeding censuses. Yet while quick to see the impropriety of a comparison of incomparable statistics which might seem to indicate a prosperous condition in a period of comparative commercial freedom, Mr. Gannett was entirely blind to the impropriety of comparisons that grossly exaggerated the apparent increase of wealth during a period of tariff restriction. Here seems the great trouble regarding our census statistics, that they have been intrusted to politicians anxious to furnish figures to support a theory instead of to economists seeking facts from which to formulate theories.

To Mr. Gannett's mind an increase in the value of property of nine billions in the decade 1850-1860 is so great as to seem incredible, while an increase from 14 billions (omitting slave values) in 1860 to 30 billions in 1870 and nearly 44 billions in

1880 is not to be questioned beyond allowance for a premium on gold of 25 per cent. in 1870. That is, during the decade of war, in which for nearly half the period more than a million of the most vigorous of our population North and South were withdrawn from productive pursuits to turn their energies to destruction, while the remainder of the population was chiefly employed in production of war material that went up in smoke, there was a larger increase in the national wealth than in the decade of peace and productive toil which preceded. In support of this absurd assertion, utterly regardless of the facts, Mr. Gannett declares that the growth of agricultural, manufacturing, and other interests does not indicate so great an increase of wealth.<sup>1</sup>

Accurate information regarding the growth of capital and wealth seems absolutely necessary to the formation of an intelligent opinion regarding the merits of systems of taxation and finance. That our census has failed to furnish this is admitted in the remarks of the recently issued *Census Volume of Wealth and Taxation* which may be epitomized as follows :

<sup>1</sup> As appears by the *Census of 1860* and other official sources these interests for the census years 1850 and 1860 were as follows :

	1850	1860
Cash value of farms.....	\$3,271,575,426	\$6,645,045,007
Value of farming implements and machinery...	151,587,638	247,127,496
Manufacturing capital.....	553,245,351	1,009,855,715
Tonnage of merchant marine.....	3,525,454	5,325,454
Tonnage of American vessels engaged in foreign trade.....	1,439,694	2,379,396
Exports of gold and silver and domestic merchandise.....	136,946,912	373,189,274
Imports of gold and silver and domestic merchandise.....	178,138,318	362,166,254
Miles of railroad.....	8,588	30,598
Value of railroads (cost).....	296,260,128	1,134,452,909
Number of banks.....	872	1,562
Banking capital.....	227,469,074	421,880,095
Loans and discounts.....	412,607,653	691,945,580

According to the figures of the *Census of 1890* the value of farms and improvements amounted to \$10,096,776 in 1880 and \$13,279,252,649 in 1890. The increase in value of farms from 1850 to 1860 was thus considerably greater than from 1880 to 1890, and almost as great as in the twenty years, 1860 to 1880.

In comparing the report of true valuation of 1890 with like valuations of previous periods it should be borne in mind :

1. That no statement of true valuation previous to 1890 included the value of vacant state or national land or Indian reservations.
2. That the true valuation for 1870 admittedly embraces certain duplications of value of personal property arising from the taxation of mortgages and the realty represented by them, and that the values are inflated, owing to the depreciation of the standard then in use, requiring a corrective reduction of 20 per cent.
3. That for 1860 and 1850 the true value appears to have been made by adding to the assessor's list such an amount as would, in the opinion of the officer reporting, compensate for the undervaluation of the assessors.

If such course was pursued no property exempt from taxation or which escaped the assessor's list is included as a part of the property valued.

These admitted differences of method pursued in reaching the figures of true valuation for the several census periods, and the temporary character of the census office, of themselves preclude any attempt of one census to revise the figures of a previous one, and the figures as published, if not as accurate as desired, can be accepted with safety as showing in a general way a continuous increase in the wealth of the nation, the exact proportions of which cannot be measured.

Here is an admission that the universal impression regarding this matter derived from the misleading remarks of the *Tenth Census* and bulletins of the present census is erroneous. Since these remarks were written by Mr. Upton, who prepared the misleading bulletins, it is not surprising that in them he endeavors to envelop the matter in doubt by saying, "*if* such a course was pursued." That such a course *appears* to have been followed he admits, but what appear to be the facts conflict with preconceived opinions and theories and so, though it is evident that under the earlier census law and the instructions which they received the marshals could have pursued no other course, Mr. Upton says, "*If* such a course was pursued no property exempt from taxation or which escaped the assessor's list is included."

How far the public is misled by census figures which we find quoted without explanation or word of warning, not only in widely circulated unofficial works of reference such as the *Chicago Daily News Almanac*, but in the *Statistical Abstract* and in bulletins of the labor bureau, can only be judged when we have



obtained something like a correct idea of the true value of all property in 1860.

The correction of the figures of the earlier censuses so that they may be fairly comparable with the later valuations is a task that could be successfully accomplished only by one having access to official records, and then with the application of almost infinite patience and perseverance. This task has, however, been accomplished by a statistician, Mr. Frederick C. Waite, whose ability, displayed in this very investigation, caused Mr. Porter, a few months before retiring, to place him in charge of investigations of true value of the present census.

Mr. Waite's conclusion, after most thorough and painstaking investigation, was that the true value of all property in 1860 could not have been less than 25 billion dollars exclusive of slave values. Considering that the valuation of 1870 was \$30,068,578,507 and that the assessed valuation of 1870 indicated an actual decrease in value per capita expressed in the inflated currency of the period, this estimate does not seem above the mark. While it must be considered that the valuation of 30 billions is expressed in a depreciated currency, and that according to the statement of Superintendent Walker prices were enhanced from 30 to 40 per cent. in the census year, it must also be considered that the valuation of 1870 is claimed by Mr. Porter and is admitted by General Walker to have been inadequate.

Assessed values show an increase from 1870 to 1880 of 20 per cent., and were there no change in methods of assessment, the valuation of 1880 being 43.6 billion dollars they would indicate the true value of all property in 1870 to have been \$36,333,000,000.

Mr. Waite, however, in the paper to which we have referred, points out that there was during the seventies a very material change in the methods of assessment, saying:

During the seventies a tidal wave of opposition to the law-defying, low-assessment plan swept the continent from the Atlantic to the Pacific. In 1874, although values had declined under the pressure of the panic of 1873, Pennsylvania increased her assessment of real estate 536 million dollars over

that of 1873, or an increase of 50 per cent. in a single year. Minnesota increased her assessment of real estate 109 per cent. the same year. The previous year Indiana added 250 million dollars to her assessment of real estate. Illinois increased her assessment from 372 million to 899 million dollars, the work of a twelvemonth. Ohio in her decennial assessment increased that of real estate 318 million dollars, or to within 76 million dollars of what it was assessed at ten years later. California in 1873 increased her assessment of real estate from 182 million to 423 million dollars. New York's record was no less wonderful. After the panic of 1873, in the face of swift-declining values caused by 92 million dollars of debts being liquidated in bankruptcy in New York City in a single year, the towns in thirty counties in a single twelvemonth increased their assessment of real estate by a mere change in the rate of per cent. at which it was assessed from 380 million to 880 million dollars, while other towns and counties raised their assessment by annual leaps and bounds. According to the state assessors, the assessment was raised from 37 per cent. of the true value in 1870 to 62 per cent. of the true value in 1880. That their estimate of the true value of real estate was not too low is apparent from the fact that it quite accurately corresponds with the tenth-census estimate, which, by the way, is the only estimate of our total wealth ever made by the national government worthy of the name. The sworn statement of over three thousand assessors as to the rate at which they assessed real estate proves conclusively that the estimate of 1870 was not too high. Hence the claim is rightly made by the state assessors that 67 per cent., or more than one billion, was added to the assessed value of real estate during the decade by a mere change in the rate per cent. of assessment, or, in other words, a net increase of 800 million dollars to the assessment rolls, while the total true value as measured in an appreciating dollar had fallen 340 million dollars. In short, taking the assessed value of real estate for each assessment district in eight commonwealths in the year before the change of the per cent. of the true value at which real estate was assessed, and placing it in one column and the assessments for the next year in another column, the difference between the two columns shows that in eight states alone a mere change in the per cent. of assessment added over three billion dollars to the assessment rolls. Remember that this was the work of a twelvemonth during which, in most cases, the value of property was depreciating more rapidly than new property was being created.

Space will not permit me to quote Mr. Waite's demonstration, from six independent masses of statistics, that the true value of all property could not have been less than 25 billion dollars in 1860 and not far from 40 billion dollars in 1870. It would seem that these investigations regarding the value of property in 1850

and 1860 would have furnished more valuable matter for publication than the many pages of comparison of incomparable statistics with which the census volumes are filled.

Mr. Waite's statement in his letter to Secretary Smith explaining his retirement from the census gives an idea of the degree of accuracy attained in the present census. In this letter Mr. Waite says :

You may not be able to understand the pressure that this man<sup>\*</sup> will bring to bear upon my successor unless I give you one instance from my painful experience. Not long since my superior, after endeavoring in vain to persuade me to furnish final estimates of the wealth in certain states at an early day (although I had not yet received some of the indispensable data then being tabulated in the census office) said : "Mr. Waite, if you should miss the mark by a thousand millions it would be all right. What we want is figures for publication."

Replying under date of May 3, 1894, to a communication in which the writer of this article had called his attention to the manner in which the public was being misled by statistics presented in bulletins of the present census, Colonel Wright said : "You are aware of course that all of the tabulation of the eleventh census was practically completed before I took charge of it. If there are glaring errors in it, I am unable to help it because I could not retake the census. My duty is simply to bring the results out in as creditable a way as possible. I am in no way responsible for the plans of the census or the collection of statistics."

Yet Colonel Wright may after all have mistaken his duty. If it was impossible so to revise the statistics of the census that they might serve to enlighten instead of to mislead, and if he had no power to send them to the garbage heap, it was surely within his authority to make them less harmful. Instead of even warning the public as to the misleading character of the statistics of the eleventh census, Colonel Wright, not only in the article criticised in the writer's former paper, but on various occasions, notably in an article in the *Forum* (May 1895), has given to them the weight of his great reputation. In the latter article he

<sup>\*</sup> Mr. Porter.

undertakes to demonstrate from census statistics that there has been in recent years not only increased opportunity but increased equality of opportunity. Colonel Wright says :

I believe that economic and industrial opportunity does really underlie every sort of opportunity and that we are making real progress toward a greater equality of opportunity through the extension of opportunities themselves ; and when this statement is supplemented by the single fact that the per capita wealth of the country has increased from \$308 in 1850 to \$1039 in 1890, the argument needs little if any further illustration. If the per capita wealth remained the same, then I should subscribe willingly to the idea that social and industrial progress and poverty grow side by side and that the rich are growing richer and the poor poorer.

It is difficult to imagine anything less scientific than such use of statistics, yet Colonel Wright declares : "The statistical method of study, which is the historical and the comparative method in the highest sense, enables us to arrive at some conclusions directly opposed to those resulting from observation. One is the empirical, the other the scientific method."

Colonel Wright's remark and his use of statistics calls to mind the story of the Scotch merchant whose accountant at the close of the year had presented him a most gratifying balance indicating that his profits during the year were nearly £2000 greater than he had expected. Elated with his good fortune the merchant tells his wife, who insists that since he is so prosperous he can afford a new equipage and furniture and new dresses for herself and daughters. Finding it difficult to meet these new expenses the merchant is puzzled to understand how it is that being so prosperous he has not a larger cash balance. He cannot sleep for wonder over the matter, so he dresses himself and goes down to his store more carefully to inspect his books. This inspection revealed the fact that in footing up the column of assets his bookkeeper had included the date 1880 which stood just above. Crestfallen he calls his accountant from his bed, exclaiming, "Sandy! ye scoundrel! come down; ye've counted in the year of our Lord."

In this case the merchant's observation was right, while his bookkeeper's statistical method was necessarily incorrect because

it was unscientific. The experience of intelligent observers is contrary to Colonel Wright's conclusions. Observation is the more likely to be right because, like Sandy's figures, Colonel Wright's are necessarily wrong. True, he has not counted in "the year of our Lord," but in making his comparison he has failed to include at least one-half the property of the earlier period, and confounding value with wealth, counts as social wealth much that represents but an increase of monopoly values.

Unfortunately our census fails to segregate land values and improvements, or to show the actual cost of the construction of railroads or gas works and other properties, the value of which represents to a large extent the value of the franchise or special privilege. For instance, the capital of Chicago gas companies is given at \$40,857,246, which is well understood in Chicago to be nearly if not quite three times the cost of the plant. The difference between social wealth and property values is shown by Professor Hadley in a contribution to the *Yale Review*. Professor Hadley says:

The word wealth has two quite distinct meanings. In its broad or social sense it includes all of those objects whose possession contributes to the enjoyment or well being of society. . . . It is impossible to obtain any accurate measure of wealth in this broad sense or even to say exactly what articles should be included in the estimate of such wealth . . . .

Individual wealth is more accurately designated as property. We may illustrate the distinction between social wealth and individual property by saying that wealth is produced, while property is acquired. . . . One or two illustrations will serve to make the distinction clear. Under the English system of enclosures, land which had formerly been free to all the public to use was made the subject of private ownership. By this practice we had an increase of property. The landlords now had valuable rights which could be bought or sold—rights of a kind that did not exist before—but the wealth of the community, for the moment, was not one whit increased. There were no more means of enjoyment in existence than there had been before. There was acquisition of property without production of wealth. On the other hand, in the abolition of slavery we sometimes see a nullification of property without a destruction of wealth.

In comparing the census valuation of 1860 with later valuations it is usual to omit slave values because it is recognized that

such values represented no social wealth. For the same reason in any fair comparison of the later valuation with that of 1850 and 1860 we must also eliminate such property values as represent only special privilege.

At the last census the value of all real and personal property in the United States amounted to \$65,037,090,197.<sup>1</sup> Of this \$39,544,544,333 was of real property exclusive of mines, quarries, telegraphs, telephones, and the exceedingly valuable land occupied by railroads. The mines were valued at \$1,291,291,579, and the railroads at \$8,685,407,323. Of this property probably considerably less than one-half represents the cost of improvements, or wealth created since the first white man landed on our coast. The land is the endowment of the Creator and its increase in value does not represent an increase of wealth—on the contrary, with forests and mines and the fertility of the soil to a large extent exhausted, there is a decrease instead of an increase of wealth of this character. Could the few be enabled to preëempt the air as they have the land and compel us to pay for the privilege of breathing it, we should have an increase of property values which Colonel Wright might with equal propriety quote as conclusive proof of increased equality of opportunity.

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<sup>1</sup> This includes property owned by foreigners. The value of such property was estimated by Giffen at one billion pounds sterling in 1880.